

## **Amendments to the Claims**

The claims are amended as follows:

1 through 27 (canceled)

28. (previously presented) A method of acquiring seismic data comprising:  
sensing seismic energy with one or more sensor modules, wherein the one or more sensor modules comprise one or more force feedback controlled accelerometers;  
recording seismic data indicative of the seismic energy using a seismic recorder;  
and  
determining the state-of-health for the sensor module comprising:  
operating the accelerometer for a period of time; and analyzing an output signal generated by the accelerometer;  
wherein analyzing an output signal comprises detecting an excessive  
root-mean-square amplitude response of the output signal to indicate a malfunction of the accelerometer or a noisy environment.
29. (canceled)
31. (previously presented) A method of acquiring seismic data comprising:  
sensing seismic energy with one or more sensor modules, wherein the one or more sensor modules comprise one or more accelerometers;  
recording seismic data indicative of the seismic energy using a seismic recorder;  
and  
determining the state-of-health for the sensor module comprising:  
operating the accelerometers;  
driving two of the accelerometers at a reference frequency;  
monitoring an output signal generated by the undriven accelerometer; and  
rotating through all the accelerometers;

wherein monitoring an output signal comprises monitoring the magnitude of the reference frequency in the output signal of the undriven accelerometer to detect a malfunction of the sensor assembly.

32. (previously presented)A method of acquiring seismic data comprising:  
sensing seismic energy with one or more sensor modules, wherein the one or more sensor modules comprise one or more accelerometers;  
recording seismic data indicative of the seismic energy using a seismic recorder;  
and  
determining the state-of-health for the sensor module comprising:  
operating the accelerometers for a period of time;  
removing DC offset from one or more output signals generated by the accelerometer to produce one or more resulting signals;  
transforming the resulting signals from the accelerometers from Cartesian coordinates into polar coordinates; and  
analyzing the polar coordinates;  
wherein analyzing the polar coordinates comprises analyzing one or more peak and root-mean-square amplitude results to indicate a malfunction of the sensor assembly or a noisy acquisition environment.

33 through 37 (canceled)